# TEAC<sub>®</sub>



# **SERVICE MANUAL**

BX-500
High Speed DC Integrated Amplifier

BX-300
DC Integrated Amplifier

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### **CAUTION**

 $\Delta$  Parts marked with this sign are safety critical components. They must always be replaced with identical components - refer to the TEAC Parts List and ensure exact replacement.

Effective: August, 1979

C-90019

5704001500

# 1 SPECIFICATIONS AND SERVICE DATA

### **SPECIFICATIONS**

Input Level	
PHONO MC	
PHONO MM	
TUNER, AUX	
<b>TAPE 1, 2</b>	
Input Impedance	
PHONO MC	
PHONO MM	
TUNER, AUX	
TAPE 1, 2	
Output Level	
TAPE REC 1, 2	
Rated Output Power	
(Both channels driven, Distortion 0.1 %,	
Impedance 8 Ω, 1 kHz)	
Required Speaker Impedance	
SPEAKERS Select A or B	
SPEAKERS Select A + B	
Power Consumption	
Weight	
Dimensions	
Width	
Height	
Depth	
Power Requirement	
and Frequency	

-BX-500	BX-300
50 μV	50 μV
2.5 mV	2.5 mV
150 mV	150 mV
150 mV	150 mV
33 ohm	15 ohm
47 k ohm	47 k ohm
10 k ohm	10 k ohm
10 k ohm	10 k ohm
150 mV	150 mV
55 W + 55 W	35 W + 35 W
4 ∼ 16 ohm	4 ∼ 16 ohm
8 ~ 16 ohm	8 ∼ 16 ohm
100 W	80 W
8.5 kg (18-12/16 lbs)	8.0 kg (17-10/16 lbs)
410 mm (16-1/8")	410 mm (16-1/8")
140 mm (5-1/2")	140 mm (5-1/2")
272 mm (10-11/16")	272 mm (10-11/16")
HODEL	Voltage (V) Frequency (Hz)

Voltage (V)	Frequency (Hz)
100,117,220,240	50/60
220	50
240	50
117	60
	220 240

# **SERVICE DATA**

Power Muting Time  $3\sim 8$  Seconds

**AUX Section Characteristic** 

Frequency Response 10 Hz  $\sim$  30 kHz (0 dB  $\pm$  1 dB)

Input: 1 kHz, 7 mV ±3 dB

Output: 1 V TONE Controls

 $100~Hz \qquad 1~kHz \qquad 10~kHz \\ BASS~and~TREBLE~MAX~+~7dB~\pm1dB~~0dB~\pm1dB~~+7dB~\pm1dB \\ BASS~and~TREBLE~MIN~~-7dB~\pm1dB~~0dB~\pm1dB~~-7dB~\pm1dB \\$ 

 Harmon ic Distortion
 20 Hz
 Less than
 0.01%

 1 kHz
 Less than
 0.008%

 20 kHz
 Less than
 0.1%

 Channel Separation
 More than 42 dB (At 1 kHz)

Noise Level Less than  $560 \,\mu\text{V}$  (  $-65 \,\text{dB}$ ), Weighted

Damping Factor (8  $\Omega$ ) 50

LOUDNESS Control (-40 dB) 100 Hz +8 dB ±1 dB 20 kHz +5 dB ±1 dB

TONE OUT Circuit (BX-500)

a) Frequency Response 10 Hz +0 dE 100 kHz +0 dE

b) Harmonic Distortion 20 Hz Less than 0.008% 1 kHz Less than 0.008%

20 kHz Less than 0.2% Less than 200  $\mu$ V (--74 dB), Weighted

### **Phono MM Section**

Input Level (Input terminal 3.3 ohm) 2.5 mV ±3 dB (1 kHz) Frequency response (RIAA Characteristic)

20 Hz +19 dB ±1 dB

100 Hz  $+13.1 \text{ dB} \pm 0.5 \text{ dB}$ 10 kHz  $-13.7 \text{ dB} \pm 0.5 \text{ dB}$  1 kHz 0 dB

20 kHz -19.6 dB ±1 dB

Noise Level Less than 48  $\mu$ V ( -86 dB ), Weighted Harmonic Distortion 20 Hz Less than 0.01%

1 kHz Less than 0.005% 20 kHz Less than 0.1%

# Phono MC Section

Input Level (Input Terminal 3.3 ohm) 50  $\mu$ V  $\pm$ 3 dB (1 kHz) Frequency response (RIAA Characteristic)

20 Hz +19 dB ±1 dB 1 kHz 0 dB 20 kHz -19 dB ±1 dB

Noise Level Less than 250  $\mu$ V ( -72 dB ), Weighted

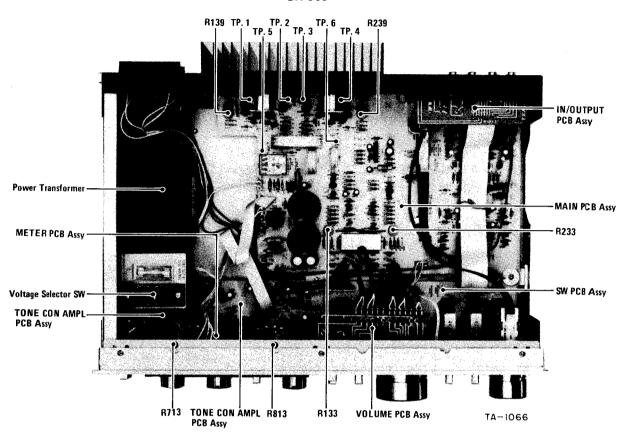
Harmonic Distortion		
20 Hz	Less than 0.03%	Less than 0.1%
1 kHz	Less than 0.03%	Less than 0.1%
20 kHz	Less than 0.7%	Less than 0.7%

The power requirements for products distributed in certain countries of Europe, U.K., Australia, Canada and the United States are not adjustable.

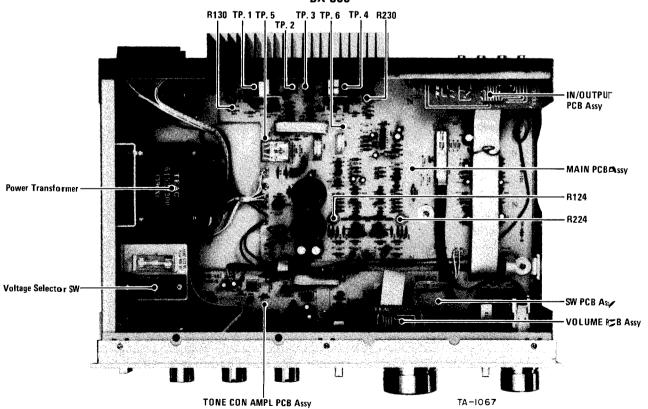
 Improvements may result in features or specifications change without notice.

# **2 PARTS LOCATION**

# BX-500



# BX-300



# 3 ADJUSTMENTS AND VOLTAGE CONVERSION

# 3-1 BEFORE ADJUSTMENT (Do not apply AC power)

1. Set the VOLUME control to MIN and SPEAKERS selector to OFF.

2. Set the semi-fixed variable resistors at the following positions.

R133/R233 (BX-500)

00)

At the center of full turning range

R124/R224 (BX-300) R139/R239 (BX-500)

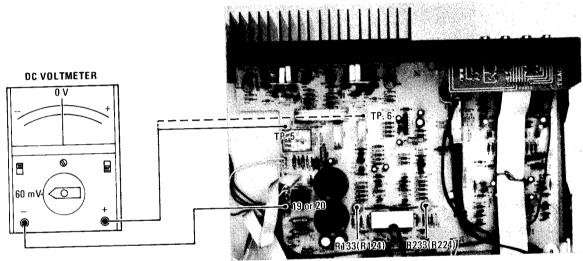
R130/R230 (BX-300)

Fully counter-clockwise

# 3-2 MID-POINT POTENTIAL ADJUSTMENT

- 1. Depress POWER switch to ON.
- 2. Connect the DC voltmeter between T.P-5 (for L-ch) or T.P-6 (for R-ch) and GND.
- 3. Adjust R133/R233 (BX-500) or R124/R224 (BX-300) so that the voltmeter indicates 0 V  $\pm$  10 mV.

Note: A differential voltmeter is preferable.

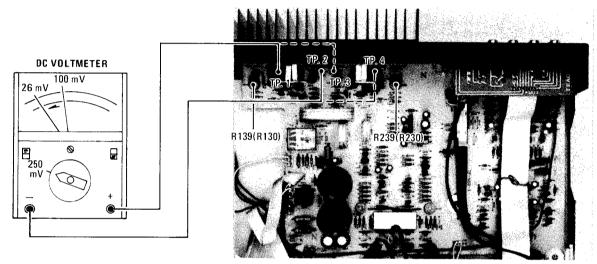


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### 3-3 IDLING CURRENT ADJUSTMENT

- 1. Connect the DC voltmeter between T.P-1 and T.P-2.
- 2. Adjust R139 (BX-500) or R130 (BX-300) so that the DC voltmeter indicates approx, 100 mV.
- 3. After R139 (BX-500) or R130 (BX-300) adjusted, wait/30 seconds for idling.
- 4. Readjust R139 (BX-500) or R130 (BX-300) so that the DC voltmeter indicates 26 mV ±15 mV.
- 5. Connect the DC voltmeter between T.P-3 and T.P-4.
- 6. Repeat procedures 1 to 4 above and adjust R239 (BX-500) or R230 (BX-300).

NOTE: When using an oscilloscope, instead of the DC voltmeter, carefully connect the oscilloscope so that the oscilloscope GND terminal is not connected to the GND of the amplifier, thereby causing a short. Use the oscilloscope in the floating state.



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# 3-4 POWER OUTPUT METER ADJUSTMENT (BX-500 only)

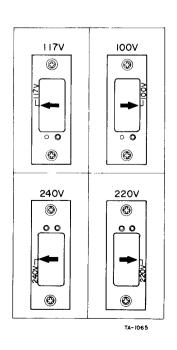
- 1. Connect the AC voltmeter to the SPEAKERS A terminal.
- 2. Set the SPEAKERS selector to A and SOURCE selector to AUX.
- 3. Set the VOLUME control to MAX.
- 4. Apply a 1 kHz input signal to provide an output power of 50 W (approx. 20 Vrms) to AUX terminals (AUX input approx. 150 m V).
- 5. Adjust R713 and R813 so that the Power Output Meters indicate 50 W.

NOTE: BX-500 should be placed in the normal operating position.

# 3-5 VOLTAGE CONVERSION (GENERAL EXPORT MODEL ONLY)

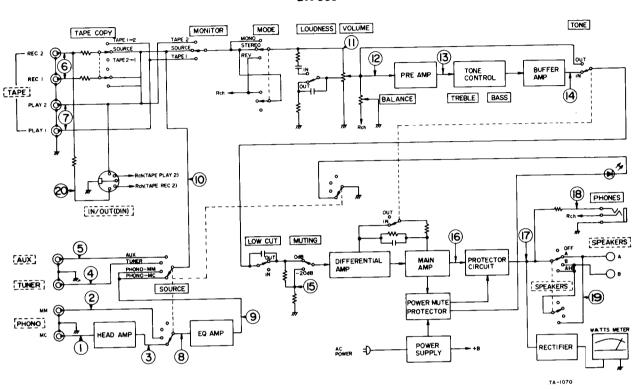
BE SURE TO REMOVE THE POWER CORD FROM THE AC OUTLET BEFORE REMOVING THE OUTER CASE AND REPOSITIONING THE VOLTAGE CONVERSION PLUG.

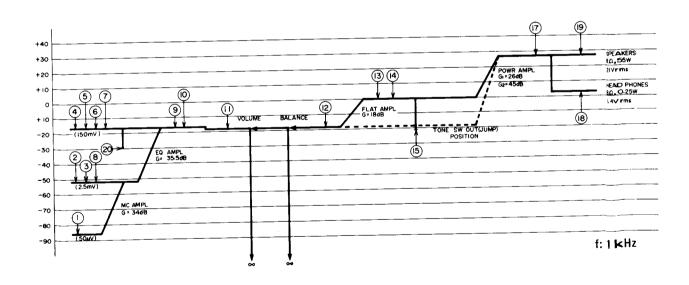
- Remove the top and side metal cover by removing screws in each side of the metal cover.
- Locate the voltage selector plug on the left side of the BX-500, BX-300.
- Remove the plug by pulling it out and re-install it so that the arrow on the plug exactly lines up with the white line that indicates the appropriate voltage.
- 4. Replace the top cover.



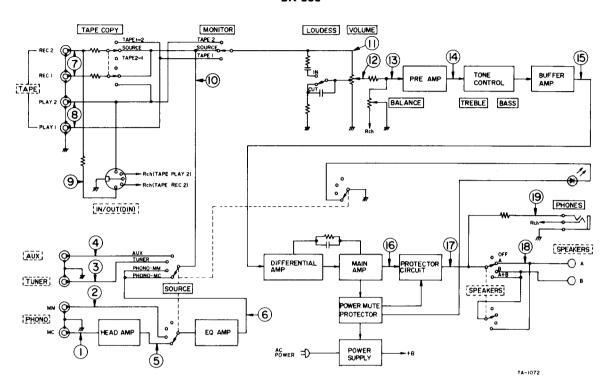
# **4 BLOCK AND LEVEL DIAGRAM**

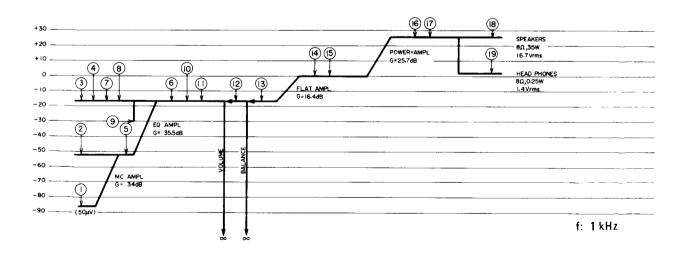
### BX-500



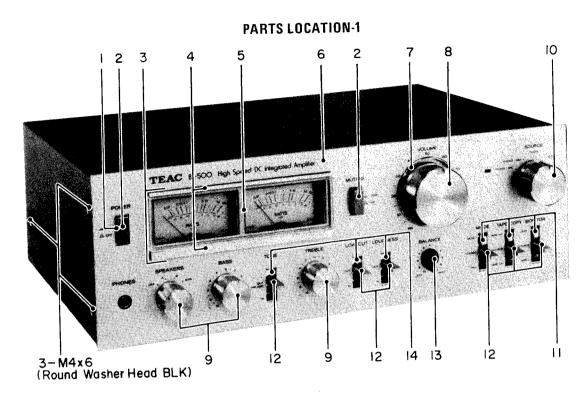


# BX-300





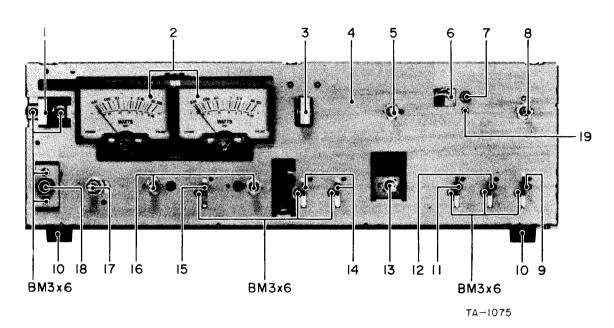
# 5 PARTS LOCATION AND PARTS LIST (BX-500) NOTE: BX-500B on parts list shows black type of front panel.



Parts marked with \*require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1 - 1	*5534772000	Escutcheon, Power Switch Escutcheon, Power Switch	(BX-500B)
1 - 2	*5800004800 5534774000	Button, Power Switch	(0.4.5000)
	5800004600 *5503215000	Button, Power Switch Cover Assy, Meter	(BX-500B)
1 - 3	*5800005200	Cover Assy, Meter	(BX-500B)
1 - 4	*5533224000 *5800005100	Escutcheon, Meter Escutcheon, Meter	(BX-500B)
1 - 5	*5533220000	Cover, Meter	
1 - 6	*5502252000 *5800006600	Panel Assy, Front Panel Assy, Front	(BX-500B)
1 - 7	*5553327000 *5800007100	Escutcheon, Volume Escutcheon, Volume	(BX-500B)
1 - 8	5555784000	Knob, VOLUME	(BX-500B)
1 - 9	5800007000 5555785000	Knob, VOLUME Knob, SPEAKERS·BASS·TREBLE	
	5800007200	Knob, SPEAKERS · BASS · TREBLE Knob, SOURCE	(BX-500B)
1 -10	5555729000 5800007300	Knob, SOURCE	(BX-500B)
1 -11	*5534781000 *5800007500	Escutcheon, Lever (3P) Escutcheon, Lever (3P)	(BX-500B)
1 -12	5534779000	Knob, Lever Knob, Lever	(BX-500B)
1 -13	5800007600 5555781000	Knob, BALANCE	(BX-500B)
1 - 14	5800004400 *5534780000	Knob, BALANCE Escutcheon, Lever (2P)	
1 - 14	*5800007400	Escutcheon, Lever (2P)	(BX-500B)

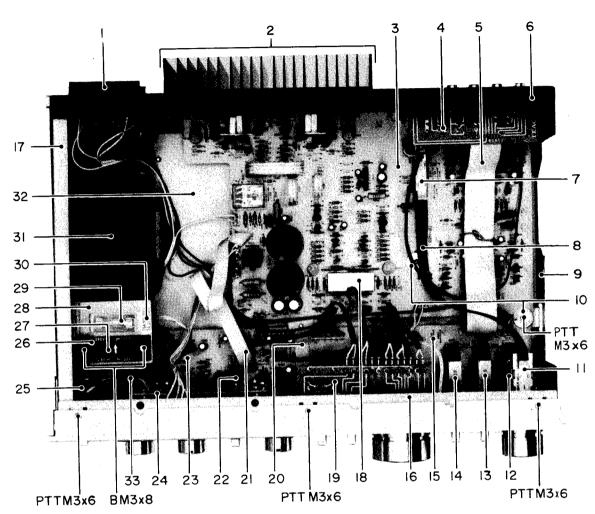
# **PARTS LOCATION-2**



Parts marked with \*require longer delivery time than regular parts.

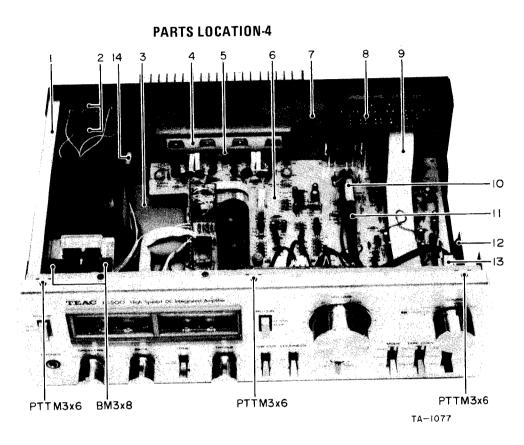
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2 - 1	<b>1</b> 5134111000	Switch, Power	JAPAN, GENERAL EXPORT
	<b>₫</b> 5134112000	Switch, Power	U.S.A., CANADA
	<b>5134125000</b>	Switch, Power	EUROPE, U.K., AUSTRALIA
2 - 2	5165066000	Meter, Power Output	
	5296000200	Meter, Power Output	(BX-500B)
2 - 3	*5134113000	Switch, Push	
2 - 4	*5551042000	Chassis, Front	
2 - 5	5150250000	Resistor, Variable 100 k ohm-B x 2	·
2 - 6	*5158031000	PCB Assy, LED	
	*5157031000	PCB, LED	Part of 2 - 6
2 - 7	5143139000	LED, (Green) SLB-26GG1	Part of 2 - 6
2 - 8	*5138014000	Switch, Operation	
2 - 9	*5132055000	Switch, Lever	
2 - 10	*5534432000	Foot	
2 - 11	5132050000	Switch, Lever	
2 - 12	5132054000	Switch, Lever	
2 - 13	5150249000	Resistor, Variable 300 k ohm	
2 - 14	5132051000	Switch, Lever	
2 - 15	5132048000	Switch, Lever	
2 - 16	5150251000	Resistor, Variable 50 k ohm-B x 2	
2 - 17	5133016000	Switch, Rotary	
2 - 18	5124022000	Jack, Phones	
2 - 19	*5534118000	Rivet, Push	

# **PARTS LOCATION-3**



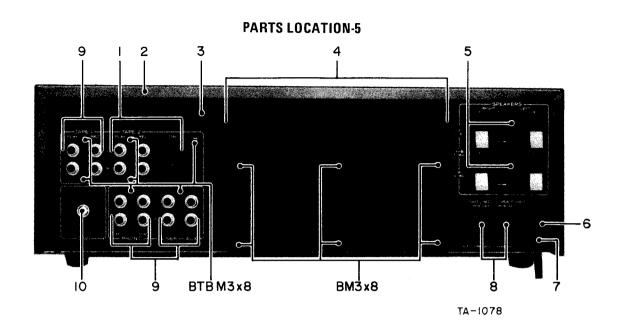
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REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3 - 1	*5122399000	Terminal, 4P Push	
3 - 2	*5553331000	Heat Sink	
3 - 3	*5158029000	PCB Assy, MAIN	
	*5157029000	PCB, MAIN	Part of 3 - 3
3 - 4	*5158024000	PCB Assy, IN/OUTPUT	
	*5157024000	PCB, IN/OUTPUT	Part of 3 - 4
3 - 5	*5127616000	Lead, Jumper	
3 - 6	*5552444000	Panel, Rear	JAPAN, U.S.A., CANADA,
		,	GENERAL EXPORT
	*5552445000	Panel, Rear	EUROPE, U.K., AUSTRALIA
3 - 7	*5138016000	Switch, Slide	
3 - 8	*5138017000	Switch, Wire	
3 - 9	*5553329000	Shassis, Right Side	
3 - 10	*5580007000	Washer	
3 - 11	*5138014000	Switch, Operation	
3 - 12	*5132055000	Switch, Lever	
3 - 13	*5132054000	Switch, Lever	
3 - 13	*5132050000	Switch, Lever	
3 - 15	*5158025000	PCB Assy, SW	
3 13	*5157025000	PCB, SW	Part of 3 - 15
3 - 16		Shassis, Front	Fait 013 - 15
3 - 10	*5551042000		
3 - 17 3 - 18	*5552446000	Chassis, Left Side	
	*5555788000	Cover, Transistor	
3 - 19	*5158026000	PCB Assy, VOLUME	D . (D . 10
2 20	*5157026000	PCB, VOLUME	Part of 3 - 19
3 - 20	*5555786000	Support, PCB; A	
3 - 21	*5127613000	Lead, Jumper	
3 - 22	*5132048000	Switch, Lever	
3 - 23	*5158027000	PCB Assy, TONE CON AMPL	
	*5157027000	PCB, TONE CON AMPL	Part of 3 - 23
3 - 24	*5158030001	PCB Assy, METER AMPL	
	*5157030001	PCB, METER AMPL	Part of 3 - 24
3 - 25	<b>△</b> 5134111000	Switch, Power	JAPAN, GENERAL EXPORT
		Switch, Power	U.S.A., CANADA
	<b>△</b> 5134125000	Switch, Power	EUROPE, U.K., AUSTRALIA
3 - 26	*5133015000	Socket, Voltage Selector	GENERAL EXPORT
3 - 27	*5133014000	Plug, Voltage Selector	GENERAL EXPORT
3 - 28	*5503231002	Bracket Assy, Voltage Selector	
	*5553328000	Bracket, Voltage Selector	Part of 3 - 28
3 - 29	*5041227000	Holder, Fuse (w/Cover)	JAPAN, U.S.A., CANADA,
			GENERAL EXPORT
	*5142096000	Holder, Fuse	EUROPE, U.K., AUSTRALIA
	<b></b> ∆ 5142117000	Fuse, 7A 125V	U.S.A., CANADA
	<b>△</b> 5142215000	Fuse, 7A 125V	GENERAL EXPORT
	<b>4</b> 5142215000	Fuse, 7A 125V	JAPAN
	<b>₫</b> 5142191000	Fuse, 3.15AT 250V	EUROPE, U.K., AUSTRALIA
3 - 30	*5720003800	Seal, Fuse Capacity 3.15AT 250V	EUROPE, U.K., AUSTRALIA
	*5720003900	Seal, Fuse Capacity 7A 125V	JAPAN, U.S.A., CANADA
		, , , , , , , , , , , , , , , , , , , ,	GENERAL EXPORT
3 - 31	<b>∆</b> 5152222000	Transformer, Power	EUROPE, U.K., AUSTRALIA
•	<b>₫</b> 5152223000	Transformer, Power	GENERAL EXPORT
	<b>1</b> 5152224000 <b>1</b>	Transformer, Power	JAPAN, U.S.A., CANADA
3 - 32	*5502255000	Chassis Assy, Bottom	J. W. W., GIO, M., ONINDA
=	*5552447000	Chassis, Bottom	Part of 3 - 32
3 - 33	*5158028000	PCB Assy, TONE CON AMPL	1.010 - 32
	*5157028000	PCB, TONE CON AMPL	Part of 3 - 34
	∆*5185664000	Resistor, Carbon; R412, R512 10 ohm ½ W	Part of 3 - 34  Non Flammable Part of 3 - 34



Parts marked with \*require longer delivery time than regular parts.

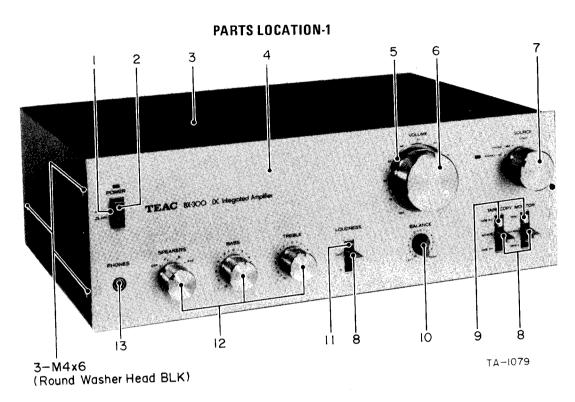
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4 - 1 4 - 2 4 - 3 4 - 4 4 - 5 4 - 6	*5552446000 *5122399000 *5502255000 *5552447000 *5555846000 *5553334000 *5158029000 *5157029000	Chassis, Left Side Terminal, 4P Push Chassis Assy, Bottom Chassis, Bottom Seat, Insulator Support, Transistor PCB Assy, MAIN PCB, MAIN	Part of 4 - 3  Part of 4 - 6  JAPAN, U.S.A., CANADA,
4 - 7	*5552444000 *5552445000 *5158024000	Panel, Rear Panel, Rear PCB Assy, IN/OUTPUT	GENERAL EXPORT EUROPE, U.K., AUSTRALIA
4 - 9 4 - 10 4 - 11 4 - 12	*5157024000 *5127616000 5138016000 *5138017000 *5553329000	PCB, IN/OUTPUT Lead, Jumper Switch, Slide Switch, Wire Chassis, Right Side	Part of 4 - 8
4 -13 4 -14	*5138014000 <u>A</u> *5052909000 <u>A</u> *5171606000 <u>A</u> *5052916000 <u>A</u> *5052913000 <u>A</u> *5052917000	Switch, Operation Spark Killer, 0.1 mfd + 120 ohm 300 V Spark Killer, 0.01 mfd 125 V Spark Killer, 0.01 mfd 125 V Spark Killer, 0.1 mfd + 120 ohm 300V Spark Killer, 0.01 mfd 450 V	JAPAN U.S.A. CANADA GENERAL EXPORT EUROPE, U.K., AUSTRALIA



REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
5 - 1	*5128102000	Pin Jack, 4P (w/DIN)	
5 - 2	*5552438000	Cover, Top	
5 - 3	*5552444000	Panel, Rear	JAPAN, U.S.A., CANADA, GENERAL EXPORT
	*5552445000	Panel, Rear	EUROPE, U.K., AUSTRALIA
5 - 4	*5553331000	Heat Sink	
5 - 5	5122399000	Terminal, 4P Push	
5 - 6	*5534661000	Strain Relief, AC Power Cord	U.K.
	*5534663000	Strain Relief, AC Power Cord	AUSTRALIA
	*5534660000	Strain Relief, AC Power Cord	All except U.K., AUSTRALIA
5 - 7	<b> ∆</b> 5128034000	Cord, AC Power	JAPAN, GENERAL EXPORT
	<b> 5128075000</b>	Cord, AC Power	U.S.A., CANADA
	<b>∆*5128018000</b>	Cord, AC Power	EUROPE
	<b></b> 1.5128094000	Cord, AC Power	EUROPE
	<b>∆*5128047000</b>	Cord, AC Power	U.K.
	<b></b> ∆*5128031000	Cord, AC Power	AUSTRALIA
5 - 8	<b>1 5122397000</b>	Socket, AC Outlet	JAPAN, U.S.A., CANADA, GENERAL EXPORT
5 - 9	*5128103000	Pin Jack, 4P	
5 - 10	*5045407100	Terminal, GND	

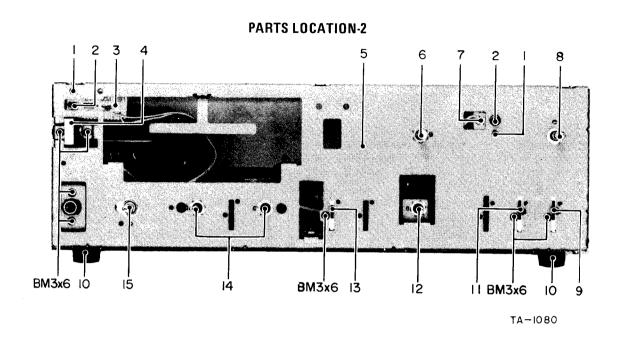
# 6 PARTS LOCATION AND PARTS LIST (BX-300)

NOTE: BX-300B on parts list shows black type of front panel.

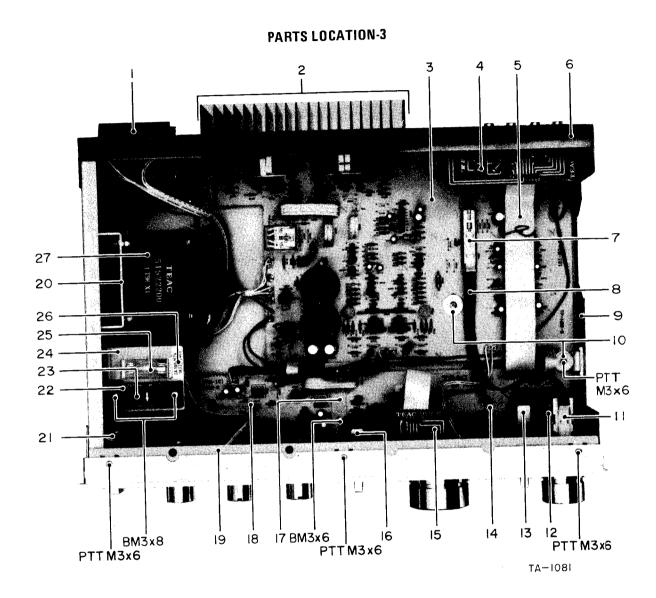


Parts marked with \*require longer delivery time than regular parts.

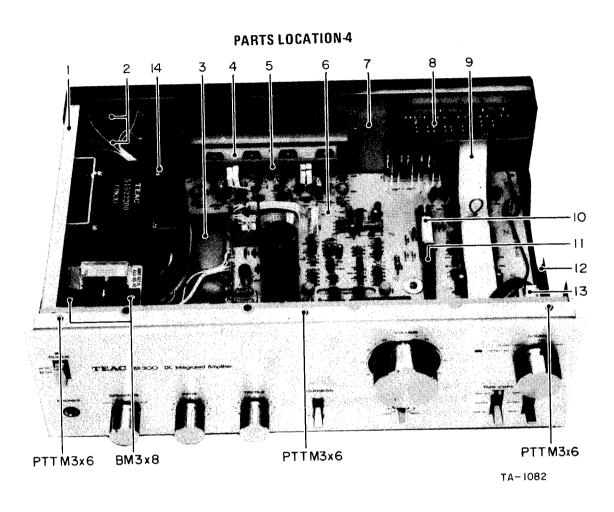
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REF. NO.	PARTS NO.	DESCRIPTION	REMARKS	
1 - 1	*5534772000	Escutcheon, Power Switch	(DV 200D)	
	*5800004800	Escutcheon, Power Switch	(BX-300B)	
1 - 2	5534774000	Button, Power Switch	(DV 200D)	
	5800004600	Button, Power Switch	(BX-300B)	
1 - 3	*5552438000	Cover, Top		
1 - 4	*5502251000	Panel Assy, Front	(DV 200D)	
	*5800006500	Panel Assy, Front	(BX-300B)	
1 - 5	*5553327000	Escutcheon, Volume	(D.V. 200P.)	
	*5800007100	Escutcheon, Volume	(BX-300B)	
1 - 6	5555784000	Knob, VOLUME	(BX-300B)	
	5800007000 Knob, VOLUME	(BX-300B)		
1 -/7	5534729000	Knob, SOURCE	(DV 200B)	
/	5800007300	Knob, SOURCE	(BX-300B)	
1 - 8	5534779000	Knob, Lever	(D)( 200D)	
	5800007600	Knob, Lever	(BX-300B)	
1 - 9	*5534781000	Escutcheon, Lever (3P)	(D) ( 000D)	
	*5800007500	Escutcheon, Lever (3P)	(BX-300B)	
1 - 10	5555781000	Knob, BALANCE	(DV 200D)	
	5800004400	Knob, BALANCE	(BX-300B)	
1 - 1 1	*5534780000	Escutcheon, Lever (2P)	(0)( 0000)	
	*5800007400	Escutcheon, Lever (2P)	(BX-300B)	
1 -12	5555785000	Knob, SPEAKERS BASS TREBLE	(DV 200D)	
-	5800007200	Knob, SPEAKERS · BASS · TREBLE	(BX-300B)	
1 - 13	5124022000	Jack, Phones		



REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2 - 1	*5534118000	Rivet, Push	
2 - 2	5143139000	LED, (Green) SLB-26GG1	Part of 2 - 3, 2 - 7
2 - 3	*5158021000	PCB Assy, LED	·
	*5157021000	PCB, LED	Part of 2 - 3
	*5180080000	Resistor, Carbon; 820 ohm ¼ W	Part of 2 - 3
	*5143148000	Diode, D903 1S2471HJ	Part of 2 - 3
2 - 4	<b>₫</b> 5134111000	Switch, Power	JAPAN, GENERAL EXPORT
	<b></b> 5134112000	Switch, Power	U.S.A., CANADA
	<b>₫</b> 5134125000	Switch, Power	EUROPE, U.K., AUSTRALIA
2 - 5	*5551042000	Shassis, Front	
2 - 6	5150250000	Resistor, Variable 100 k ohm-B x 2	Part of 3 - 15
2 - 7	*5158031000	PCB Assy, LED	
	*5157031000	PCB, LED	Part of 2 - 7
2 - 8	*5138014000	Switch, Operation	
2 - 9	*5132055000	Switch, Lever	
2 - 10	*5534432000	Foot	
2 - 11	*5132054000	Switch, Lever	
2 - 12	5150249000	Resistor, Variable 300 k ohm	
2 - 13	*5132051000	Switch, Lever	
2 - 14	5150251000	Resistor, Variable 50 k ohm-B x 2	
2 - 15	5133016000	Switch, Rotary	



3 - 2 3 - 3 3 - 4 3 - 5 3 - 6 3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21  Δ Δ Δ 3 - 22	*5122399000 *5553330000 *5158020000 *5157020000 *5157016000 *5127616000 *5552444000 *5552444000 *5553329000 *5583017000 *5138014000 5132055000 5132054000 *5158017000 *5158017000 *5158018000 *5157017000 *5157017000 *5157018000 5132051000 *5555786000	Terminal, 4P Push Heat Sink PCB Assy, MAIN PCB, MAIN PCB Assy, IN/OUTPUT PCB, IN/OUTPUT Lead, Jumper Panel, Rear  Panel, Rear Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever Support, PCB; A	Part of 3 - 3  Part of 3 - 4  JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14  Part of 3 - 15
3 - 2 3 - 3 3 - 4 3 - 5 3 - 6 3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21  Δ Δ Δ 3 - 22	*5553330000 *5158020000 *5157020000 *5158016000 *5157016000 *5552444000 *5552444000 *5553329000 *5553329000 *5580007000 *5138014000 5132055000 5132054000 *5158017000 *5158018000 *5157017000 *5157017000 *5157018000 51320551000 *5555786000	Heat Sink PCB Assy, MAIN PCB, MAIN PCB, MAIN PCB Assy, IN/OUTPUT PCB, IN/OUTPUT Lead, Jumper Panel, Rear Panel, Rear Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB, SW PCB, VOLUME Switch, Lever	Part of 3 - 4  JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 3 3 - 4 3 - 5 3 - 6 3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	*5158020000 *5157020000 *5157016000 *5157016000 *5552444000 *5552444000 *5553329000 *5553329000 *5580007000 *5138014000 5132055000 5132054000 *5158017000 *5158018000 *5157017000 *5157017000 *5157018000 51320551000 *5555786000	PCB Assy, MAIN PCB, MAIN PCB, MAIN PCB Assy, IN/OUTPUT PCB, IN/OUTPUT Lead, Jumper Panel, Rear Panel, Rear Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB, SW PCB, VOLUME Switch, Lever	Part of 3 - 4  JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 4 3 - 5 3 - 6 3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	*5157020000 *5158016000 *5157016000 *5127616000 *5552444000 *5552444000 *5553329000 *5553329000 *5580007000 *5132055000 5132054000 *5158017000 *5158018000 *5157017000 *5157017000 *5157018000 51320551000 *5555786000	PCB, MAIN PCB Assy, IN/OUTPUT PCB, IN/OUTPUT Lead, Jumper Panel, Rear Panel, Rear Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB, SW PCB, VOLUME Switch, Lever	Part of 3 - 4  JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 4 3 - 5 3 - 6 3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	*5158016000 *5157016000 *5127616000 *5552444000 *5552444000 *5552444000 *5138016000 *5138017000 *5553329000 *5580007000 *5132055000 5132054000 *5158017000 *5158018000 *5157017000 *5157018000 5132051000 *5555786000	PCB Assy, IN/OUTPUT PCB, IN/OUTPUT Lead, Jumper Panel, Rear  Panel, Rear Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	Part of 3 - 4  JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 5 3 - 6  3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14  3 - 15  3 - 16 3 - 17 3 - 18  3 - 19 3 - 20 3 - 21	*5157016000 *5127616000 *5552444000 *5552444000 *5552444000 *5138016000 *5138017000 *5553329000 *5580007000 *5132055000 5132054000 *5158017000 *5158018000 *5157017000 *5157018000 5132051000 *5555786000	PCB, IN/OUTPUT Lead, Jumper Panel, Rear  Panel, Rear Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 5 3 - 6  3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14  3 - 15  3 - 16 3 - 17 3 - 18  3 - 19 3 - 20 3 - 21  A	*5127616000 *5552444000 *5552444000 *5552445000 *5138016000 *5138017000 *5553329000 *5580007000 *5138014000 5132055000 5132054000 *5158017000 *5157017000 *5157018000 5132051000 *5555786000	Lead, Jumper Panel, Rear  Panel, Rear  Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	JAPAN, U.S.A., CANADA, GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 6  3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14  3 - 15  3 - 16 3 - 17 3 - 18  3 - 19 3 - 20 3 - 21  Δ Δ Δ Δ	*5552444000  *5552445000 *5138016000 *5138017000 *5553329000 *5580007000 *5132055000 5132054000 *5158017000 *5157017000 *5157018000 5132051000 *5555786000	Panel, Rear  Panel, Rear  Switch, Slide  Switch, Wire  Chassis, Right Side  Washer  Switch, Operation  Switch, Lever  Switch, Lever  PCB Assy, SW  PCB, SW  PCB Assy, VOLUME  PCB, VOLUME  Switch, Lever	GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	*5552445000 *5138016000 *5138017000 *5553329000 *5580007000 *5138014000 5132055000 5132054000 *5158017000 *5157017000 *5157018000 5132051000 *5555786000	Panel, Rear Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	GENERAL EXPORT EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21 A	*5138016000 *5138017000 *5553329000 *5580007000 *5138014000 5132055000 5132054000 *5158017000 *5157017000 *5157018000 5132051000 *5555786000	Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	EUROPE, U.K., AUSTRALIA  Part of 3 - 14
3 - 7 3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21 A	*5138016000 *5138017000 *5553329000 *5580007000 *5138014000 5132055000 5132054000 *5158017000 *5157017000 *5157018000 5132051000 *5555786000	Switch, Slide Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	Part of 3 - 14
3 - 8 3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21  A	*5138017000 *5553329000 *5580007000 *5138014000 5132055000 5132054000 *5158017000 *5157017000 *5157018000 5132051000 *5555786000	Switch, Wire Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 9 3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21  Δ Δ Δ 3 - 22	*5553329000 *5580007000 *5138014000 5132055000 5132054000 *5158017000 *5157017000 *5157018000 5132051000 *5555786000	Chassis, Right Side Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 10 3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21  A	*5580007000 *5138014000 5132055000 5132054000 *5158017000 *5157017000 *5158018000 *5157018000 5132051000 *5555786000	Washer Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 11 3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21 A	*5138014000 5132055000 5132054000 *5158017000 *5157017000 *5158018000 *5157018000 5132051000 *5555786000	Switch, Operation Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 12 3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	5132055000 5132054000 *5158017000 *5157017000 *5158018000 *5157018000 5132051000 *5555786000	Switch, Lever Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 13 3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	5132054000 *5158017000 *5157017000 *5158018000 *5157018000 5132051000 *5555786000	Switch, Lever PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 14 3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21  Δ Δ Δ 3 - 22	*5158017000 *5157017000 *5158018000 *5157018000 5132051000 *5555786000	PCB Assy, SW PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21  Δ Δ Δ 3 - 22	*5157017000 *5158018000 *5157018000 5132051000 *5555786000	PCB, SW PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 15 3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21  Δ Δ Δ 3 - 22	*5158018000 *5157018000 5132051000 *5555786000	PCB Assy, VOLUME PCB, VOLUME Switch, Lever	
3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	*5157018000 5132051000 *5555786000	PCB, VOLUME Switch, Lever	Part of 3 - 15
3 - 16 3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	5132051000 *5555786000	Switch, Lever	Part of 3 - 15
3 - 17 3 - 18 3 - 19 3 - 20 3 - 21	*5555786000	·	
3 - 18 3 - 19 3 - 20 3 - 21		Support PCR: A	
3 - 19 3 - 20 3 - 21		• • • • • • • • • • • • • • • • • • • •	
3 - 19 3 - 20 3 - 21	*5158019000	PCB Assy, TON CONE AMPL	
3 - 20 3 - 21	*5157019000	PCB, TON CONE AMPL	Part of 3 - 18
3 - 21	*5551042000	Chassis, Front	
∆ ∆ 3 - 22	*5553332000	Bracket, Transformer Mounting	
∆∆ 3 - 22	5134111000	Switch, Power	JAPAN, GENERAL EXPORT
3 - 22	5134112000	Switch, Power	U.S.A., CANADA
	5134125000	Switch, Power	EUROPE, U.K., AUSTRALIA
2 22	*5133015000	Socket, Voltage Selector	GENERAL EXPORT
3 - 23	*5133014000	Plug, Voltage Selector	GENERAL EXPORT
3 - 24	*5503231000	Bracket Assy, Voltage Selector	
	*5553328001	Bracket, Voltage Selector	Part of 3 - 24
3 - 25	*5041227000	Holder, Fuse (w/Cover)	JAPAN, U.S.A., CANADA,
			GENERAL EXPORT
	*5142096000	Holder, Fuse	EUROPE, U.K., AUSTRALIA
Δ	5041144000	Fuse, 2 A 250 V	U.S.A., CANADA
Δ	5041101000	Fuse, 1 A 250 V	GENERAL EXPORT
4	5041114000	Fuse, 2 A 250 V	GENERAL EXPORT
	5041141000	Fuse, 1 A 250 V	EUROPE, U.K., AUSTRALIA
	*5564127000	Seal, Fuse Capacity 1 A 250 V	EUROPE, U.K., AUSTRALIA
	*5560047000	Seal, Fuse Capacity 2 A 250 V	JAPAN, U.S.A.
	*5564722000	Seal, Fuse Capacity 2 A 250 V	JAPAN, U.S.A., CANADA
	*5564677000	Seal, Fuse Capacity 2 A 100-117 V, 1 A 220-240 V	GENERAL EXPORT
	220 .0000	Transformer, Power	EUROPE, U.K., AUSTRALIA
	5152219000		GENERAL EXPORT
4	5152219000 5152220000	Transformer, Power	



		Parts marked	MICH Leduits touder neutset a time com 1981172 bereit
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4 - 1 4 - 2 4 - 3 4 - 4 4 - 5 4 - 6	*5552446000 *5122399000 *5502255000 *5552447000 *5555846000 *5553334000 *5158020000 *5157020000 *5552444000	Chassis, Left Side Terminal, 4P Push Chassis Assy, Bottom Chassis, Bottom Seat, Insulator Support, Transistor PCB Assy, MAIN PCB, MAIN Panel, Rear	Part of 4 - 3  Part of 4 - 6  JAPAN, U.S.A., CANADA,  GENERAL EXPORT
4 - 8 4 - 9 4 - 10 4 - 11 4 - 12 4 - 13 4 - 14	*5552445000 *5158016000 *5157016000 *5127616000 5138016000 *5138017000 *5553329000 5138014000 A*5052909000 A*5171606000 A*5052916000 A*5052913000 A*5052917000	Spark Killer, 0.1 mfd + 120 ohm 300 V Spark Killer, 0.01 mfd 125 V Spark Killer, 0.01 mfd 125 V Spark Killer, 0.1 mfd + 120 ohm 300 V	EUROPE, U.K., AUSTRALIA  Part of 4 - 8  JAPAN U.S.A. CANADA GENERAL EXPORT EUROPE, U.K., AUSTRALIA

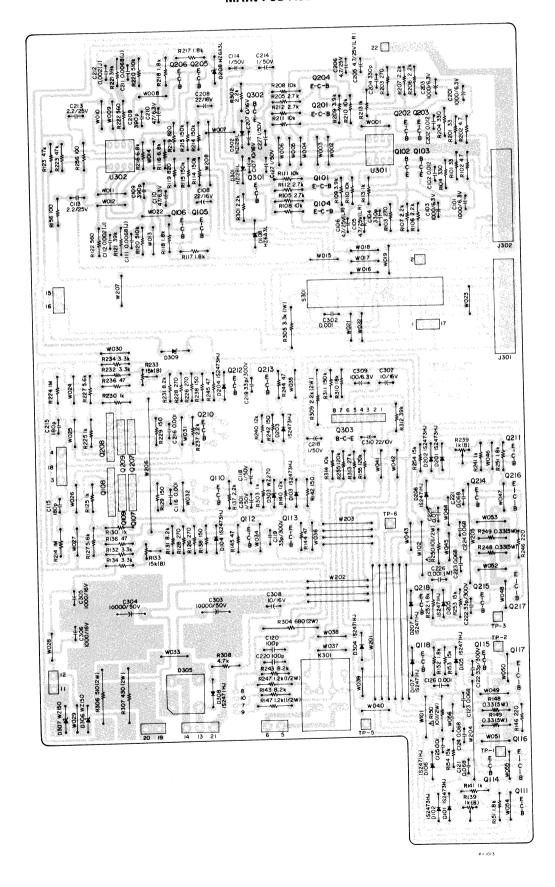
# PARTS LOCATION-5 9 2 3 4 5 5 10 9 BTBM3x8 BM3x8 TA-1083

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
5 - 1	*5128102000	Pin Jack, 4P (w/DIN)	
5 - 2	*5552438000	Cover, Top	
5 - 3	*5552444000	Panel, Rear	JAPAN, U.S.A., CANADA,
			GENERAL EXPORT
	*5552445000	Panel, Rear	EUROPE, U.K., AUSTRALIA
5 - 4	*5553330000	Heat Sink	, ,
5 - 5	5122399000	Terminal, 4P Push	
5 - 6	*5534661000	Strain Relief, AC Power Cord	U.K.
	*5534663000	Strain Relief, AC Power Cord	AUSTRALIA
	*5534660000	Strain Relief, AC Power Cord	All except U.K., AUSTRALIA
5 - 7	<b></b> ∆ 5128034000	Cord, AC Power	JAPAN, GENERAL EXPORT
		Cord, AC Power	U.S.A., CANADA
	<b>∆*5128018000</b>	Cord, AC Power	EUROPE
	<b>∆</b> *5128094000	Cord, AC Power	EUROPE
	<b></b> 4*5128047000	Cord, AC Power	U.K.
	<b>∆</b> *5128031000	Cord, AC Power	AUSTRALIA
5 - 8	<b></b> ∆ 5122397000	Socket, AC Outlet	JAPAN, U.S.A., CANADA,
			GENERAL EXPORT
5 - 9	*5128103000	Pin Jack, 4P	
5 - 10	*5045407100	Terminal, GND	

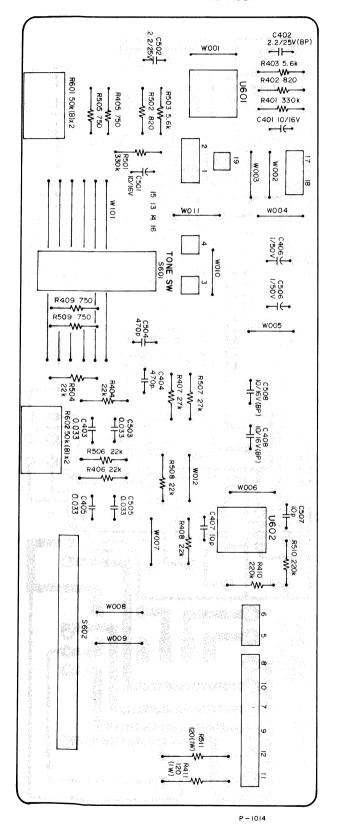
# 7 PC BOARDS AND PARTS LIST (BX-500)

PC Boards shown viewed from foil side.

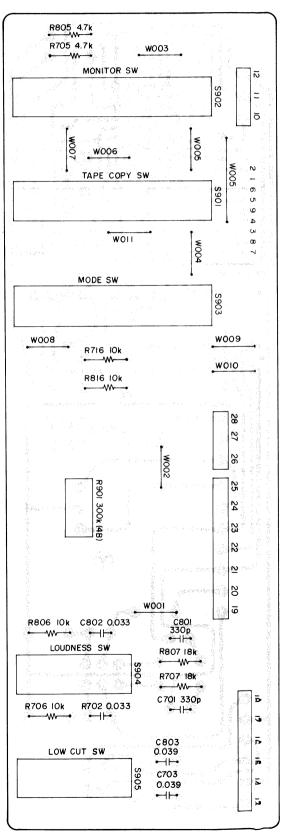
# MAIN PCB ASSY



### **TONE CON AMPL PCB ASSY**

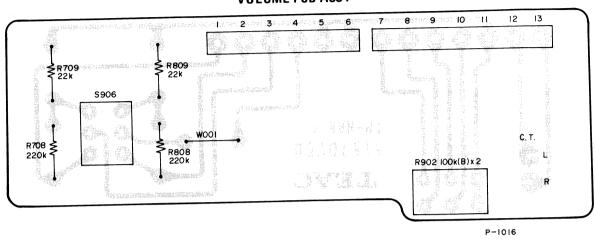


### SW PCB ASSY

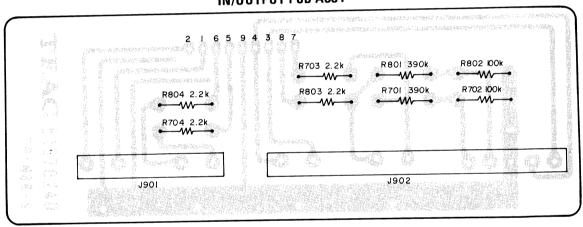


P-1015

# **VOLUME PCB ASSY**

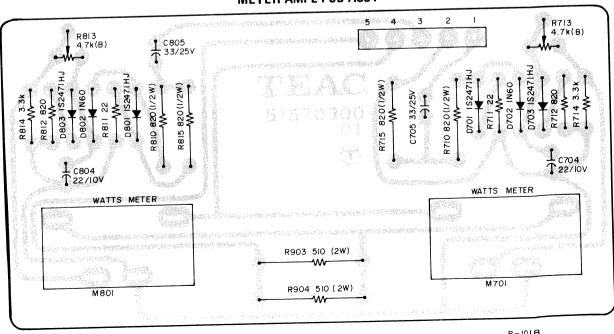


# IN/OUTPUT PCB ASSY



### P-1017

# METER AMPL PCB ASSY



P-1018

# MAIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION	REF. NO.	PARTS NO.	DESCRIP	<b>FION</b>	
	5158029000	PCB Assy	R113, R213	5181482000	1 k ohm		
			R114, R214		150 k ohm	1	
	5157029000	PCB	R115, R215		150 k ohm		
			R116, R216	5181502000	6.8 k ohm		
	IC's		R117, R217	5181488000	1.8 k ohm		
			R118, R218	5181488000	1.8 k ohm		
U301, U302	5147064000	NJM4559DD	R119, R219	5181480000	820 ohm		
U303	5147065000	HA12002	R120, R220	5181547000	510 k ohm	ı	
	TO A NOICE	O.B.C	R121, R221	5181520000	39 k ohm		
	TRANSIST	Jrs	R122, R222		560 ohm		
Q101, Q201	5145150000	2SA1015(GR)	R123, R223		47 k ohm		
Q101, Q201	5145163000	2SB737(S)	R124, R224		1 M ohm		
Q103, Q203	5145164000	2SD786(S)	R125, R225	5181482000	1 k ohm		
Q104, Q204	5145151000	2SC1815(GR)	R126, R226	5181468000	270 ohm		
Q105, Q205	5145153000	2SC2240(GR)	R127, R227 R128, R228		5.6 k ohm		
Q106, Q206	5145153000	2SC2240(GR)	R129, R229	5181468000	270 ohm		
Q107, Q207	5145155000	2SA995(F)	R130, R230	5181462000 5181482000	150 ohm 1 k ohm		
Q108, Q208	5145156000	2SK109(C)	R131, R231	5181504000	8.2 k ohm		
Q109, Q209	5145154000	2SC2259(F)	R132, R232		3.3 k ohm		
Q110, Q210	5145149000	2SA970(GR)	R134, R234	5181494000	3.3 k ohm		
Q111, Q211	5145151000	2SC1815(GR)	R136, R236	5181450000	47 ohm		
Q112, Q212	5145166000	2SA949(Y)	R137, R237	5181490000	2.2 k ohm		
Q113, Q213	5145167000	2SC2229(Y)	R138, R238		150 ohm		
Q114, Q214	5145169000	2SC2235(Y)	R140, R240	5181508000	12 k ohm		
Q115, Q215	5145168000	2SA965(Y)	R141, R241	5181482000	1 k ohm		
Q116, Q216	5145171000	2SD718(O)	R142, R242	5181462000	150 ohm		
Q117, Q217	5145170000	2SB688(O)	R143, R243	5185544000	8.2 k ohm	Meta	l Film
Q118, Q218	5145153000	2SC2240(GR)	R144, R244	5181450000	47 ohm		
Q301	5145151000	2SC1815(GR)	R145, R245	5181450000	47 ohm		
Q302, Q303	5145150000	2SA1015(GR)	R146, R246	5181466000	220 ohm		
			R147, R247	5185354000	1.2 k ohm	1/2W	Metal Film
	DIODES		R148, R248	<b> ∆</b> 5185201000	0.33 ohm	Meta	l Plate
						Non	Flammable
D101 $\sim$ D104	5143118000	1S2473HJ	R149, R249	<b></b> ∆5185201000	0.33 ohm	Meta	l Plate
D105~D107	5143148000	1S2471HJ					Flammable
D201 ~ D204	5143118000	1\$2473HJ	R150, R250	<b>∆5185664000</b>	10 ohm	1/2 <b>W</b>	Non Flammable
D205~D207	5143148000	1S2471HJ	R151, R251	5181488000	1,8 k ohm		
D108, D208	5143144000	HZ6A3L	R152, R252	5181488000	1.8 k ohm		
D301, D302 D303	5143311000	HZ12B1L	R153, R253	5181510000	15 k ohm		
D303	5143300000 5143148000	WZ270 1S2471HJ	R154, R254	5181510000	15 k ohm		
D304 D305	5143309000	3D4B41	R155, R255	5181532000			
D306, D307	5143285000	WZ150	R156, R256 R301	5181458000 5181490000	100 ohm 2.2 k ohm		
D308	5143148000	1S2473HJ	R302	5181490000	2.2 k ohm		
D309	5143278000	WZ100	R303	5181482000	1 k ohm		
2000	01.10270000		R304	5184811000	680 ohm	2W	Metal Film
	RESISTORS	3	R305	5185802000	3.3 k ohm		Metal Film
All resistor		% tolerance, ¼ watt and of	R306	<b></b> ∆5184808000	510 ohm	2W	Metal Film
		ss otherwise noted.		201111111111			Non Flammable
R101, R201	5181446000	33 ohm	R307	<b> ∆</b> 5184806000	430 ohm	2W	Metal Film Non Flammable
R102, R202	5181426000	4.7 ohm	R308	5181498000	4.7 k ohm		
R103, R203	5181468000	270 ohm	R309	5185616000	2.2 k ohm	2W	Metal Film
R104, R204	5181470000	330 ohm	R310	5181512000	18 k ohm		
R105, R205	5181492000	2,7 k ohm	R311	5181534000	150 k ohm		
R106, R206	5181490000	2.2 k ohm	R312	5181520000	39 k ohm		
R107, R207	5181490000	2.2 k ohm	R313	5181516000	27 k ohm		
R108, R208	5181506000	10 k ohm	R314	5181506000	10 k ohm		
R109, R209	5181496000	3.9 k ohm					
n 109, n209			1				
	5181506000	10 k ohm					
R110, R210 R111, R211	5181506000 5181506000	10 k ohm 10 k ohm					

REF. NO.	PARTS NO.	DESCRIPT	ION	
1121.1101	CAPACITOR			
	5470000000	Elec.	1000 mfd	6.3V
C101, C201	5172968000	Mylar	0.012 mfd	0.01
C102, C202	5171882000	•	1000 mfd	6.3V
C103, C203	5172968000	Elec.	330 pfd	0.5 v
C104, C204	5172612000	Polyst.	4,7 mfd	25V (LR)
C105, C205	5171563000	Elec.	4.7 mia	25 V (LIT)
C106, C206	5171563000	Elec.	4.7 mfd	25V (LR)
C107, C207	5173140000	Elec.	10 mfd	16V
C108, C208	5173156000	Elec.	22 mfd	16V
C109, C209	5172614000	Polyst.	390 pfd	
C110, C210	5173178000	Elec.	<b>47</b> mfd	6.3V
C111, C211	5170372000	Mylar	0.0068 mfd	
C112, C212	5170359000	Mylar	0.002 mfd	
C113, C213	5171402000	Elec.	2.2 mfd	25V (BP)
C114, C214	5173104000	Elec.	1 mfd	50V
C115, C215	5172606000	Polyst.	180 pfd	
C116, C216	5170376000	Mylar	0.001 mfd	
C118, C218	5173104000	Elec.	1 mfd	50V
C118, C218	5173219500	Dip. Mica	33 pfd	300V
C119, C219	5054744000	Dip. Mica	100 pfd	
	5171900000	Mylar	0.068 mfd	
C121, C221	5173219500	Dip. Mica	33 pfd	300V
C122, C222	5171900000	Mylar	0.068 mfd	
C123, C223	5171900000	Mylar	0.068 mfd	
C124, C224	5171880000	Mylar	0.01 mfd	
C125, C225	5170376000	Mylar	0.001 mfd	
C126, C226	5173104000	Elec.	1 mfd	50V
C127, C227	5173104000	Elec.	1 mfd	50V
C301	5170376000	Mylar	0.001 mfd	
C302	5171611000	Elec.	10000 mfd	50V
C303, C304	5171011000	Elec.	1000 mfd	16V
C305, C306	5172970000		10 mfd	16V
C307, C308	5173140000		100 mfd	6.3V
C309			22 mfd	10V
C310	5173154000	LIEC.	22 11110	
	VARIABL	E RESIST	ORS	
R133, R233	5053354000		ed 15 k ohm	
R139, R239	5053350000	Semi-fixe	ed 1 k ohm	
	MISCELLA	ANEOUS		
K301	5061151000	Relay, P	ower	
J301, J302	5128103000			
0001,0002	5555788000		ransistor	
S301	5138014000	-	Operation	
S301	513801700			
S301	513801600			
0001	512242300			D-1
	512242400	• • •		D-2
	512247500			F-3
	512247400		Terminal W	F-2
	512247400			F-1
	0.22.0000			

# TONE CON AMPL PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION	ON			
	5158027000	PCB Assy				
	5157027000	РСВ				
	IC's					
	.0 3					
U601, U602	5147064000	NJM4559DI	)			
RESISTORS All resistors are rated $\pm 5\%$ tolerance, $\frac{1}{4}$ watt and of						
All resistor	rs are rated ±5	% (Oleranice	, 14 Watt aik			
car	bon type unle	SS Offici Misc	: noteu.			
R401, R501	5181542000	330 k ohm				
•	5181480000	820 ohm				
R402, R502	5181500000	5.6 k ohm				
R403, R503	5181514000	22 k ohm				
R404, R504	5181314000	750 ohm				
R405, R505	5181479000	22 k ohm				
R406, R506	5181514000	27 k ohm				
R407, R507	5181514000	22 k ohm				
R408, R508	5181479000	750 ohm				
R409, R509	5181538000	220 k ohm				
R410, R510 R411, R511	5184757000	120 ohm	1W Metal	Film		
M411, M311	3104737000					
	CAPACITO	RS				
C401, C501	5173140000	Elec.	10 mfd	16V		
C401, C501	5171402000	Elec.	2.2 mfd	25V (BP)		
C402, C502	5171892000	Mylar	0.033 mfd			
C404, C504	5172616000		470 pfd			
C405, C505	5171892000	Mylar	0.033 mfd			
C406, C506	5173104000	•	1 mfd	50V		
C407, C507	5054740000		10 pfd			
C408, C508	5171412000	-	10 mfd	16V (BP)		
- · · · · ·						
	MISCELLA	NEOUS				
R601, R602	5150251000			ohm-B x 2		
S601	5132048000					
S602	5133016000					
	5122423000	Lapping T				
	5122424000					
	5122428000	Lapping T	erminal ND-	-6		

# SW PCB ASSY

REF. NO.	PARTS NO.	DESCRIP	TION	
	5158025000	PCB Assy		
	5157025000	PCB		
	RESISTORS	_		
All resisto			ce, ¼ watt and of	
	carbo	on type.		
D705 D005	5181298000	17 k ohn	2	
R705, R805 R706, R806	5181298000			
R707, R807	5181312000			
R716, R816	5181306000			
11710,11010	310100000	10 11 011111		
	CAPACITO	RS		
C701, C801	5172492000	Polyst.	330 pfd	
C702, C802	5054824000	Mylar	0.033 mfd	
C703, C803	5054863000	Mylar	0.039 mfd	
	MISCELLA	NEOUS		
R901	5150249000	Resistor	Variable 300 k ohm	
S901	5132054000	Switch, L		
S902	5132055000	Switch, L		
S903	5132050000	Switch, L		
S904, S905	5132051000	Switch, L		
,	5122425000	Lapping	Terminal WD-3	
	5122428000	Lapping 1	Terminal WD-6	

# **VOLUME PCB ASSY**

REF. NO.	PARTS NO.	DESCRIPTION
	5158026000	PCB Assy
	5157026000	PCB
All resisto		S $\%$ tolerance, $\%$ watt and of on type.
R708, R808	5181538000	220 k ohm
R709, R809	5181514000	22 k ohm
	MISCELLA	NEOUS
R902	5150250000	Resistor, Variable 100 k ohm-B
S906	5134113000	Switch, Push
	5122441000	Lapping Terminal WU-6
	5122440000	Lapping Terminal WU-7

5122429000 Lapping Terminal WD-7

# IN/OUTPUT PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158024000	PCB Assy
	5157024000	PCB
	RESISTORS	
All resisto		% tolerance, $%$ watt and of on type.
		.,,
R701, R801	5181544000	390 k ohm
R702, R802	5181530000	100 k ohm
R703, R803	5181490000	2.2 k ohm
R704, R804	5181490000	2.2 k ohm
	MISCELLA	NEOUS
J901	5128103000	Pin Jack, 4P
J902	5128102000	Pin Jack, 4P (w/DIN)
METER AM	PL PCB ASSY	

REF. NO.	PARTS NO.	DESCRIPTION	
	5158030001	PCB Assy	
	5157030001	РСВ	
	DIODES		
D701, D801 D702, D802 D703, D803 D704, D705	5143148000 5042213000 5143148000 5042519000	1S2471HJ 1N60 1S2471HJ WZ075	

### RESISTORS

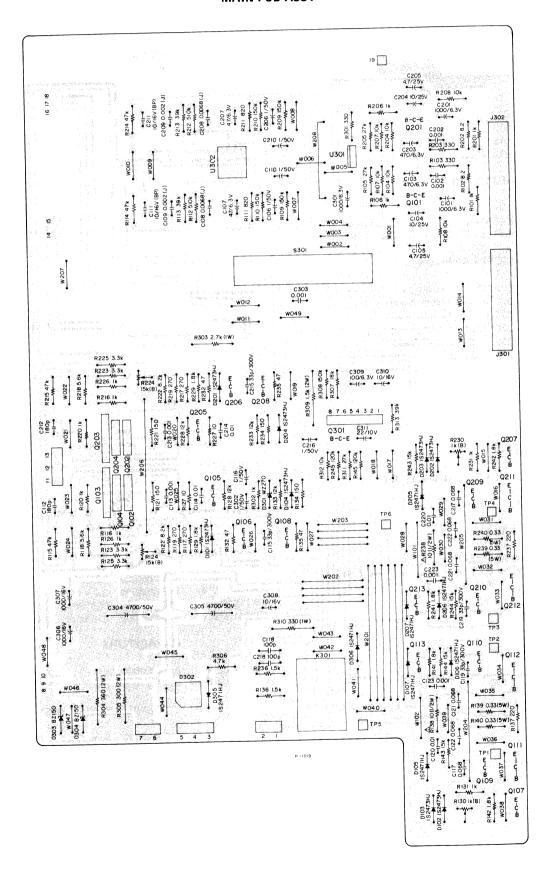
All resistors are rated ±5% tolerance, ¼ watt and of carbon type.

carbon type.					
R710, R810 R711, R811 R712, R812 R714, R814 R715, R815	5181242000 5181280000 5181294000	22 ohm 820 ohm 3.3 k ohm	½W ½W		
R903, R904	5184808000	510 ohm	2W		
CAPACITORS					
C704, C804	5172907000	Elec.	22 mfd	10V	
C705, C805	5172917000	Elec.	33 mfd	25 V	
	VARIABLE	RESISTO	RS		
R713, R813	5150127000	Semi-fixed	4.7 k ohm		
	MISCELLA	NEOU\$			
M701, M801	5165066000 5296000200 5555996000 5122439000	Meter, Power Output (₽ -500B) Meter Scale, Meter			

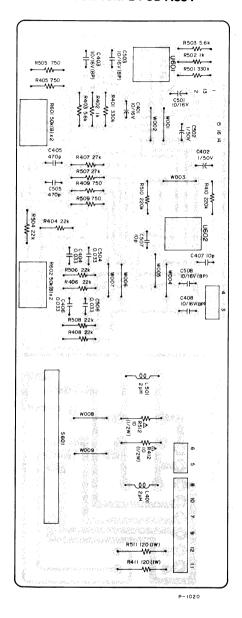
# 8 PC BOARDS AND PARTS LIST (BX-300)

PC Boards shown viewed from foil side.

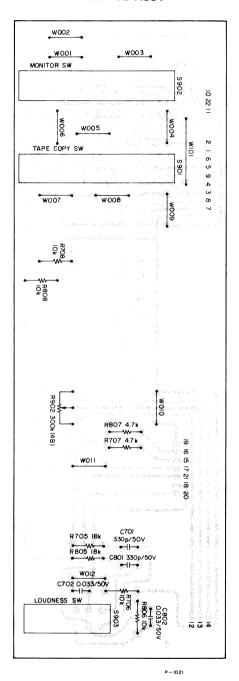
# **MAIN PCB ASSY**



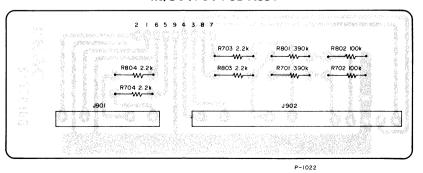
# **TONE CON AMPL PCB ASSY**



# **SW PCB ASSY**



# **IN/OUTPUT PCB ASSY**



**27** 

# MAIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION			
	5158020000	Main PCB Assy			
	5157020000	Main PCB			
	IC's				
U301		μPC78L08			
U302	5147064000	NJM4559DD			
U303	5147065000	HA12002			
	TRANSISTO	OR\$			
Q101, Q201	5145164000	2SD786(S)			
Q102, Q202	5145155000	2SA995(F)			
Q103, Q203	5145156000	2SK109(C)			
Q104, Q204	5145154000	2SC2259(F)			
Q105, Q205	5145149000				
	5145175000	2SB646A(C)			
Q107, Q207	5145151000	2SC1815(GR)			
Q108, Q208	5145176000	2SD666A(C)			
Q109, Q209	5145174000	2SD667A(C)			
Q110, Q210	5145173000	2SB647A(C)			
Q111, Q211	5145165000	2SD716(O)			
Q112, Q212	5145172000	2SB686(O)			
Q113, Q213	5145153000	2SC2240(GR)			
Q301	5145150000	2SA1015(GR)			
	DIODES				
D101~D104	5143118000	1S2473HJ			
D105~D107	5143148000	1S2471HJ			
D201~D204	5143118000	1S2473HJ			
D205~D207	5143148000				
D301	5143300000	WZ270			
D302	5143310000	1D4B1			
D303, D304	5143312000				
D305, D306	5143148000	1S2471HJ			
	RESISTOR				
All moniet	are are rated +	5% tolerance, ¼ watt and of			

All resistors are rated ±5% tolerance, ¼ watt and of carbon type unless otherwise noted.

R101, R201	5181482000	1 k ohm
R102, R202	5181432000	8.2 ohm
R103, R203	5181470000	330 ohm
R104, R204	5181506000	10 k ohm
R105, R205	5181516000	27 k ohm
R106, R206	5181482000	1 k ohm
R107, R207	5181506000	10 k ohm
R108, R208	5181506000	10 k ohm
R109, R209	5181534000	150 k ohm
R110, R210	5181534000	150 k ohm
R111, R211	5181480000	820 ohm
R112, R212	5181547000	510 k ohm
R113, IR213	5181520000	39 k ohm
R114, R214	5181522000	47 k ohm
R115, R215	5181522000	47 k ohm
R116, FR216	5181482000	1 k ohm
R117, R217	5181468000	270 ohm
R118, R218	5181500000	5.6 k ohm
R119, R219	5181468000	270 ohm
R120, R220	5181482000	1 k ohm
R121, R221	5181462000	150 ohm

REF. NO.	PARTS NO.	DESCRIPTION	DN	
R122, R222	5181504000	8.2 k ohm		
R123, R223	5181494000	3.3 k ohm		
R125, R225	5181494000	3.3 k ohm		•
R126, R226	5181456000	82 ohm		
R127, R227	5181434000	10 ohm		
R128, R228	5181508000	12 k ohm		
R129, R229	5181488000	1.8 k ohm		
R131, R231	5181482000	1 k ohm		
R132, R232	5181450000	47 ohm		
R133, R233	5181508000	12 k ohm		
R134, R234	5181462000	150 ohm		
R135, R235	5181450000	47 ohm		
R136, R236	5185526000		Metal F	ilm
R137, R237	5181466000	220 ohm		
R138, R238	1 185664000 ₺	10 ohm		n Flammable
R139, R239	1 185201000 ₺	'0.33 ohm		tal Film
•			No	n Flammable
R140, R240	<b></b> ∆5185201000	0.33 ohm	•••	etal Film on Flammable
R141, R241	5181488000	1.8 k ohm		
R142, R242	5181488000	1.8 k ohm		
R143, R243	5181510000	15 k ohm		
R144, R244	5181510000	15 k ohm		
R145, R245	5181532000	120 k ohm		
R301	5181470000	330 ohm		
R302	5181482000	1 k ohm		
R303	5185800000	2.7 k ohm	1W M	etal Film
R304	∆5184804000	360 ohm		etal Film
11004				on Flammable
R305	<b></b> ∆5184802000	300 ohm		etal Film on Flammable
R306	5181498000	4.7 k ohm		
R307	5181512000	18 k ohm		
R308	5181534000	150 k ohm		
R309	5185612000	1.5 k ohm		etal Film
R310	5184767000	330 ohm	1W M	letal Film
R311	5181516000	27 k ohm		
R312	5181506000	10 k ohm		
R313	5181520000	39 k ohm		
	CAPACITO	ORS		
			4000	
C101, C201	5172968000		1000 r	
C102, C202	5170376000		0.001	
C103, C203	5172959000		470 m	
C104, C204	5173142000		10 mf	
C105, C205	5173128000		4.7 m	
C106, C206	5173104000		1 mfd	
C107, C207	5173178000		47 mf	
C108, C208	5170372000	-		8 mfd
C109, C209	5170359000		0.002	
C110, C210	517310400		1 mfd	
C111, C211	517141200		10 mf	
C112, C212	517260600		180 p	
C113, C213			0.001	
C114, C214	517188000		0.01	
C115, C215		<ol><li>Dip. Mica</li></ol>		
C116, C216		0 Elec.	1 mfg	
C117, C217	517190000		0.068	
C118, C218		0 Dip. Mica		
C119, C219	517321950			
C120, C220			0.01	
C121, C221	517190000	0 Mylar	0.068	im fd
I				

REF. NO.	PARTS NO.	DESCRIPT	ION	
C122, C222	5171900000	Mylar	0.068 mfd	
C122, C222	5170376000	Mylar	0.000 mfd	
	- · · · - · <del>-</del> · · · ·	Elec.	1000 mfd	6.3V
C301	5172968000	Elec.	1 mfd	50V
C302	5172882000		0.001 mfd	30 V
C303	5170376000	Mylar Elec.	4700 mfd	50V
C304, C305	5171464000			
C306, C307	5172970000	Elec.	1000 mfd 10 mfd	16V 16V
C308	5173140000	Elec.	10 mia 100 mfd	
C309	5173190000	Elec.		6.3V
C310	5173140000		10 mfd	16V
C311	5173154000	Elec.	22 mfd	10V
	VARIABLE	RESISTO	RS	
R124, R224	5053354000	Semi-fixed	I 1.5 k ohm-E	3
R130, R230	5053350000	Semi-fixed	I 1 k ohm-B	
	MISCELLA	NEOUS		
K301	5061151000	Relay, Pov	ver	
J301, J302	5128103000	Pin Jack, 4	<b>1</b> ₽	
S301	5138014000	Switch, O	peration	
S301	5138017000	Switch, W	ire	
S301	5138016000	Switch, Sli	ide	
	5122423000	Lapping T	erminal WD	)-1
	5122424000	Lapping T	erminal WD	-2
	5122475000	Lapping T	erminal WF	-3
	5122474000	Lapping T	erminal WF	-2
	5122485000	Lapping T	erminal WF	-1
		· · · · ·		

# TONE CON AMPL PCB ASSY

PARTS NO.	DESCRIPTION
5158019000	PCB Assy
5157019000	PCB
IC's	
5147064000	NJM4559DD
	% tolerance, ¼ watt and of
bon type unie	ss otnerwise noted.
5181542000	330 k ohm
	1 k ohm
5181500000	5.6 k ohm
5181514000	22 k ohm
5181479000	750 ohm
5181514000	22 k ohm
5181516000	27 k ohm
5181514000	22 k ohm
5181479000	750 ohm
5181538000	220 k ohm
5184757000	120 ohm 1W Metal Film
<b>∆5185664000</b>	10 ohm ½W Non Flammable
CAPACITO	RS
5173140000	Elec. 10 mfd 16V
5173104000	Elec. 1 mfd 50V
5171412000	Elec. 10 mfd 16V (BP)
5171892000	Mylar 0.033 mfd
5172616000	Polyst. 470 pfd
5171892000	Mylar 0.033 mfd
5054382000	Dip. Mica 22 pfd
5171412000	Elec. 10 mfd 16V (BP)
MISCELLA	NEOUS
5160050000	Coil, 2 μH
5150251000	Resistor, Variable 50 k ohm-B x 2
5133016000	Switch, Rotary
5122424000	Lapping Terminal WD-2
	5158019000  IC's  5147064000  RESISTORS (s are rated ±5) bon type unles  5181542000 5181542000 5181514000 5181514000 5181514000 5181514000 5181514000 5181514000 5181514000 5181538000 5181538000 5181538000 5181538000 5171412000  5173140000 5173104000 5173104000 5171412000 5171412000  MISCELLAN  5160050000 5133016000

# SW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTI	ON
	5158017000	PCB Assy	
	5157017000	PCB	
All resisto		% tolerance on type.	e, ¼ watt and of
R705, R805	5181312000	18 k ohm	
R706, R806	5181306000	10 k ohm	
R707, R807	5181298000		
R708, R808	5181310000	15 k ohm	
	CAPACITO	RS	
C701, C801	5172492000	Polyst.	330 pfd
C702, C802	5054824000	Mylar	0.033 mfd
	MISCELLA	NEOUS	
R902	5150249000	Resistor, V	ariable 300 k ohm
S901	5132054000	Switch, lev	ver .
S902	5132055000	Switch, lev	ver .
S903	5132051000	Switch, lev	ver

# IN/OUTPUT PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5158016000	PCB Assy
	5157016000	PCB
All resisto		s % tolerance, ¼ watt and of n type.
R701, R801	5181544000	390 k ohm
R702, R802	5181530000	100 k ohm
R703, R803	5181490000	
R704, R804	5181490000	2.2 k ohm
	MISCELLA	NEOUS
J901	5128103000	Pin Jack, 4P
J902	5128102000	Pin Jack, 4P (w/DIN)

# INCLUDED ACCESSORIES

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
	5101704000 5101705000 5101706000 5101701000 5101702000 5101703000	BX-500 Owner's Manual BX-300 Owner's Manual BX-300 Owner's Manual	JAPAN U.S.A., CANADA AII except JAPAN, U.S.A., CANADA JAPAN U.S.A., CANADA AII except JAPAN, U.S.A., CANADA

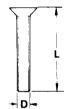
# **ASSEMBLING HARDWARE CODING LIST**

All screws conform to ISO standards, and have crossrecessed heads, unless otherwise noted. ISO screws have the head inscribed with a point as in the figure to the right.



### FOR EXAMPLE:

В	Μ	3	x	6	
÷		i		1	
1		1			
	- :				Length in mm (L)
1	1				Diameter in mm (D) *
1		_	- '		been blattleter in thin (b)
i	1				
					Nomonclature

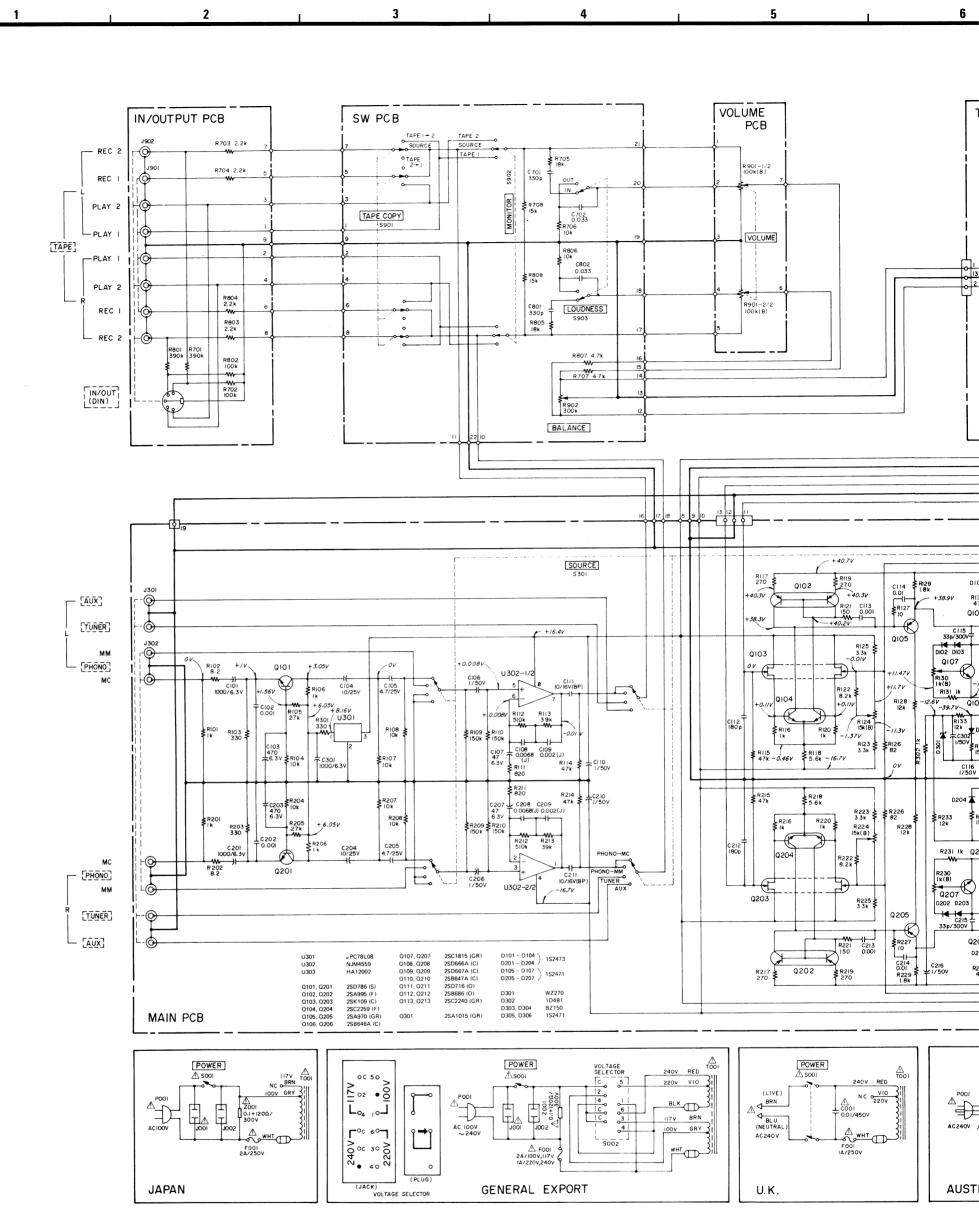




<sup>\*</sup> Inner dia. for washers and nuts

	Code	Name	Туре		Code	Name	Түре
MACHINE SCREW	R	Round Head Screw		TAPPING SCREW	вта	Binding Head Tapping Screw(A Type)	
-	P	Pan Head Screw			втв	Binding Head Tapping Screw(B Type)	
	Т	Stove Head Screw (Truss)			RTA	Round Head Tapping Screw(A Type)	
	В	Binding Head Screw			RTB	Round Head Tapping Screw(B Type)	(E)
ļ-	F	Flat Countersunk Head Screw	(X)	SETSCREW	SF	Hex Socket Setscrew(Flat Point)	
_	0	Oval Countersunk Head Screw	<b>(</b>		sc	Hex Socket Setscrew(Cup Point)	0
WOOD SCREW	RW	Round Head Wood Screw			SS	Slotted Socket Setscrew(Flat Point)	Ø <u></u>
TAPTITE SCREW	PTT	Pan Head Taptite Screw		WASHER	E	E-Ring (Retaining Washer)	(7)
-	WTT	Washer Head Taptite Screw			w	Flat Washer (Plain)	0
SEMS SCREW	BSA	Binding Head SEMS Screw(A Type)	(3)		sw	Lock Washer (Spring)	G
	BSB	Binding Head SEMS Screw(B Type)			LWI	Lock Washer (Internal Teeth)	(Example)
	BSF	Binding Head SEMS Screw(F Type)	(3)		LWE	Lock Washer (External Teeth)	<b>É</b>
	PSA	Pan Head SEMS Screw(A Type)			TW	Trim Washer (Countersunk)	9
	PSB	Pan Head SEMS Screw(B Type)		NUT	N	Hex Nut	

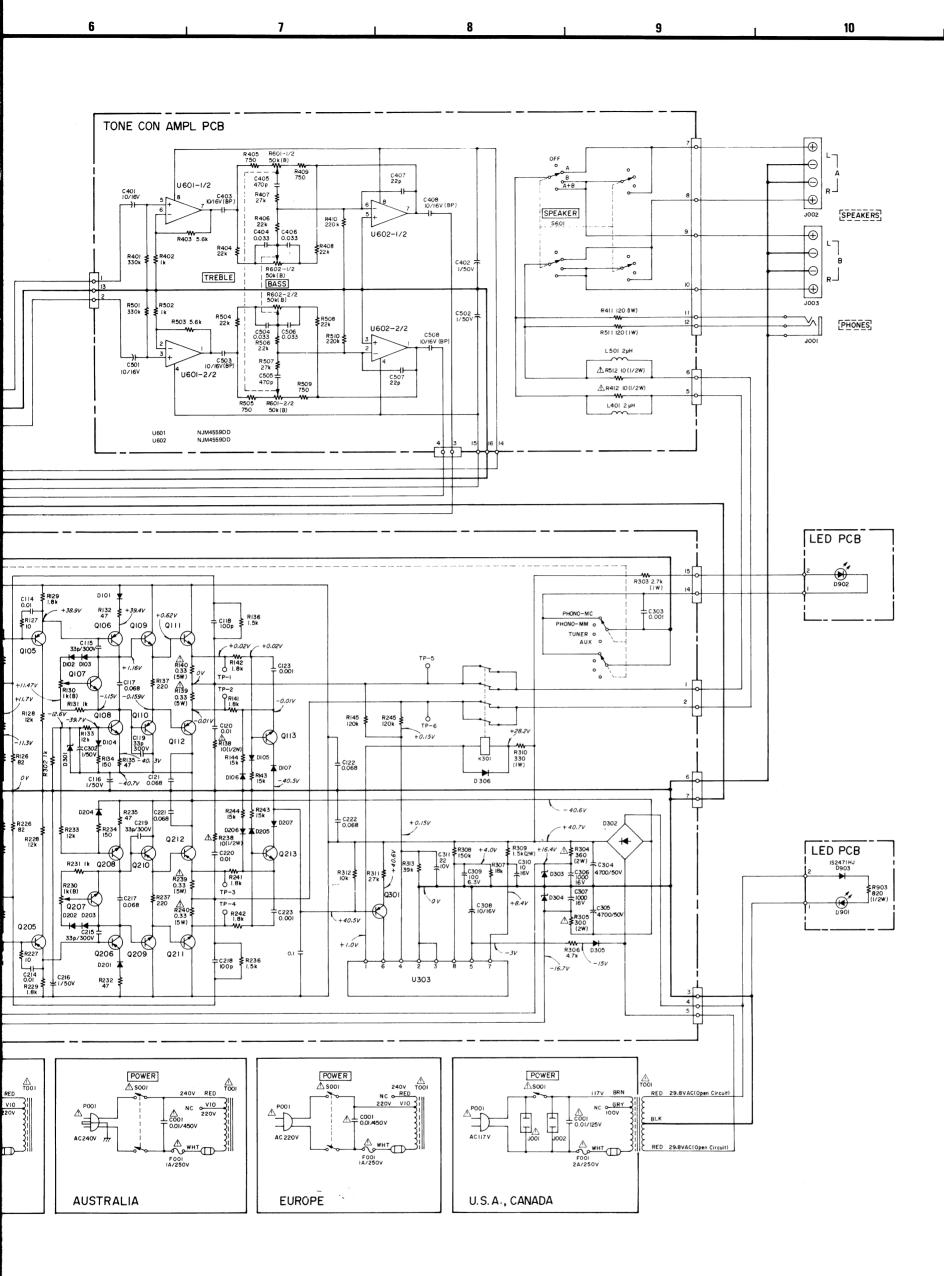
В

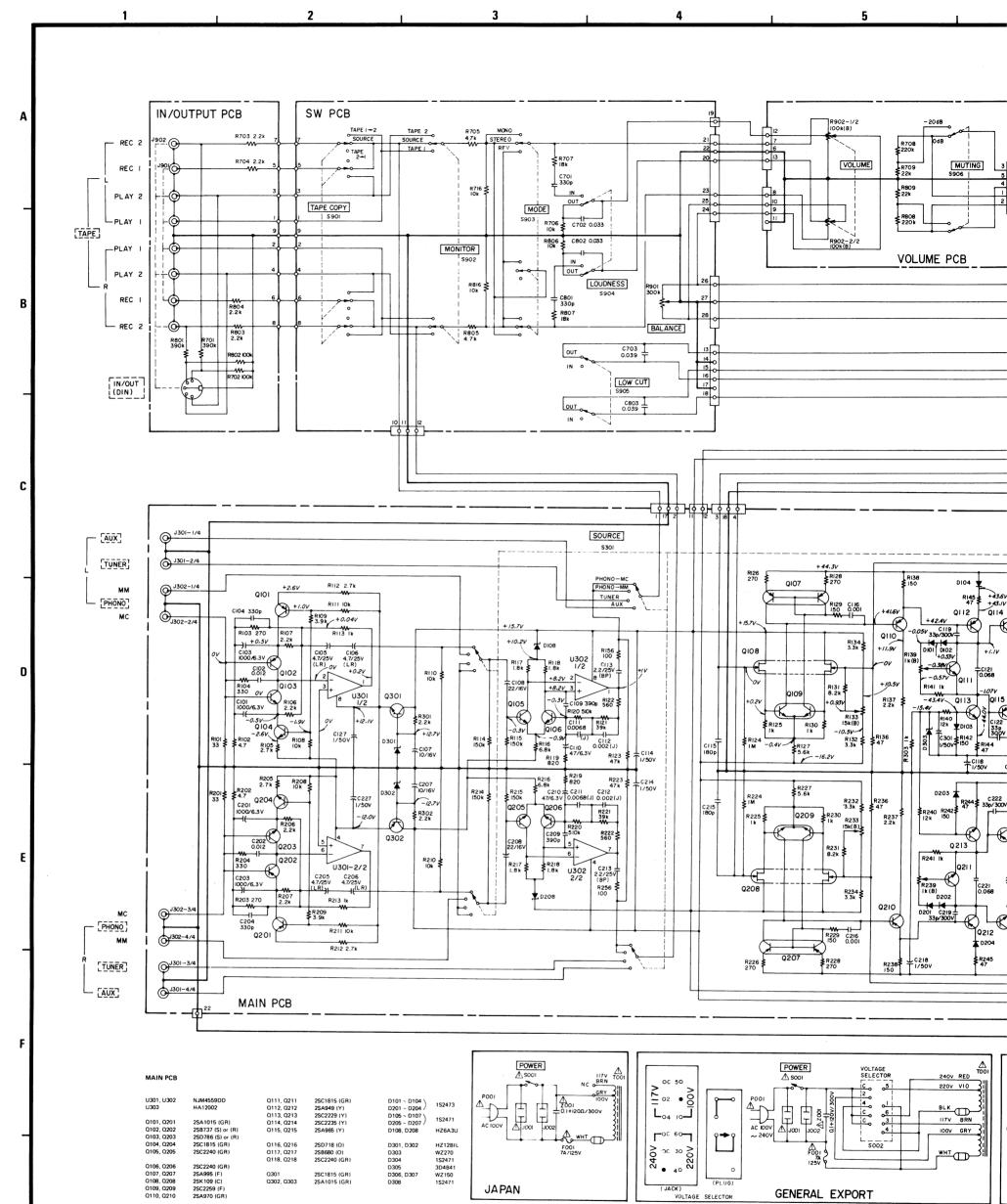


# NOTES

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- ALL RESISTORS ARE ¼ WATT, 5%, UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (k = 1,000 OHMS, M = 1,000,000 OHMS).
- 2. ALL CAPACITOR VALUES ARE IN MICROFARADS (p = PICOFARADS).
- 3. DC VOLTAGES MEASURED WITH NO SIGNAL INPUT.
- 4. APARTS MARKED WITH THIS SIGN ARE SAFETY CRITICAL COM-PONENTS. THEY MUST ALWAYS BE REPLACED WITH IDENTICAL COMPONENTS - REFER TO THE TEAC PARTS LIST AND ENSURE EXACT REPLACEMENT.





# NOTES

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Н

- ALL RESISTORS ARE ¼ WATT, 5%, UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (k = 1,000 OHMS, M = 1,000,000 OHMS).
- 2. ALL CAPACITOR VALUES ARE IN MICROFARADS (p = PICOFARADS).
- 3. DC VOLTAGES MEASURED WITH NO SIGNAL INPUT, AND WITH THE TONE SWITCH IN THE OUT (PRE JUMP) POSITION.
- 4. 

  APARTS MARKED WITH THIS SIGN ARE SAFETY CRITICAL COM-PONENTS. THEY MUST ALWAYS BE REPLACED WITH IDENTICAL COMPONENTS - REFER TO THE TEAC PARTS LIST AND ENSURE EXACT REPLACEMENT.

